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SOCIETY OF ARTS.

FRIDAY, DECEMBER 3rd, 1852.

SECOND ORDINARY MEETING,

Wednesday, December 1st, 1852.

The second ordinary meeting of the Society was held on Wednesday, the 1st instant. The chair was taken by W. Tooke, Esq., F.R.S., and subsequently by Lord Monteagle. The following Gentlemen were elected members:

Bolton, Thomas, 17, Hamilton-street, Camden-town.
Chambers, George, High Green House, near Sheffield.
Crowfoot, W. J., M.D., Beccles.
Edgeworth, T., Wrexham.
Gorham, John, Tunbridge.
Grove, George, 3, Adelaide-place, London-bridge.
Haden, George, C.E., Trowbridge.
Harvey, William, Barnsley.
Haworth, Rev. Richard, M.A., Huntingdon.
Heane, Henry, Newport (Salop).
Heathcote, John, M.P., Tiverton, and 5, Warwick-street, Charing-cross.
Hopkinson, W. L., M.D., Stamford.
Hunt, Robert, Museum of Economic Geology, Jermyn-street.
Litchfield, John, Northampton.
Lloyd, Sampson, Wednesbury.
Macready, William Charles, Sherborne, Dorset.
Martin, Horace, Battle.
Morgan, Henry, The Terrace, Sheerness.
Pearce, Alfred B., 23, Ludgate-hill.
Petit, Rev. J. L., 9, New-square, Lincoln's-inn.
Portman, Lord, Bryanstone, Blandford, Dorset.
Russell, Lord Charles, Woburn.
Smart, George, Cardiff.
Tancred, John William, Greenwich Hospital.
Trevelyan, Arthur, Wallington, Morpeth.
Vane, Rev. J., Barrington, Bristol, and 29, Cambridge-street, Hyde-park.
Walters, Rev. Charles, M.A., F.R.A.S., Winchester.
Wicksteed, Rev. Charles, Leeds.
Wright, Caleb, Tyldesley.
Wrightson, William Battie, M.P., Cusworth, Yorks., and 22, Upper Brook-street,

and the names of one hundred and nine candidates for membership were read.

Mr. Cole then gave his Lecture on the International Results of the Great Exhibition of 1851. As this lecture will be immediately published entire, as the concluding one of the series given before the Society, it is unnecessary to give so full an abstract of it, as would be otherwise desirable, with so important and interesting a subject.

The lecture commenced by a brief review of some of those circumstances which led to the Great Exhibition, and the peculiar reasons which rendered the year 1851 a most appropriate period for holding a great international Exhibition, and which at the same time combined to make England the best and fitted locality for such a comparison of industrial progress.

The first suggestion of a great international Exhibition unquestionably came from France; but from the manner in which the proposal was met, when it was first put forth by M. Buffet in 1848, it was evident that the French manufacturers, though quite alive to the importance of such an Exhibition, from their long experience of the results of their own national Exhibitions, were not at all inclined to adopt the idea of a universal comparison of industry. They were willing to accept all the advantages which such an Exhibition might offer to them, but they were afraid of the foreign rivalry and competition to which it would most certainly expose them. The proposal of M. Buffet, therefore, was not carried out; it was an offer to other nations to come and show to the French manufacturers what they were doing, but upon the understanding that they were not to gain anything by such an Exhibition!

Mr. Cole then showed how the cosmopolitan nature of the English nation eminently fitted it to carry out this great idea in its fullest and most complete sense. After a short account of the steps in the first instance taken by the Royal Commission, Mr. Cole proceeded to point out the important international principle which was recognised and adopted in the formation of the "Juries," in which, for the first time, international questions relating to art, science, and commerce, were discussed by men practically acquainted with such subjects. From the further development of this great principle, it might possibly hereafter arrive, that other and more important international questions,—even those upon the issue of which peace or warfare might depend,—should be settled by the voices of merchants and manufacturers, rather than by the correspondence of diplomats, or the thunder of artillery Success in war depends on the length of the national purse, and the national purse depends wholly upon national industry.

Amongst the more immediate results of the Great Exhibition must be mentioned, that agitation in favour of a reduced and uniform system of postage, which, sooner or later will surely lead to an improvement in the mode by which international and colonial correspondence is conducted. The reform of our Patent Laws also, to some extent, may likewise be traced to the Great Exhibition; and though this is at present, in truth, only a national result, yet if the new law is really and truly carried out, and if the specifications of all our patents are printed, as is the case in America and Belgium, it will soon become an international one.

The Sanitary Congress instituted at Paris, is another development of the international spirit, brought about by the Exhibition, and will probably in time lead to the future reformation of the Quarantine Laws, and to the arrangement of many other medical questions of importance.

Improved modes of conveyance, by land and by water, have led to increased travelling, and the large number of manufacturers and artizans who have been enabled, in consequence, to visit other countries, both giving and receiving information, whilst it cannot fail to benefit all classes of manufacturers, will also lead to yet further improvements in the means of locomotion.

Certainly not least in importance amongst the results of the Exhibition, is the introduction of a new and most useful kind of architecture in glass and iron, as shown in Paxton's building; it is hardly possible to overrate the beneficial influence which the Crystal Palace is calculated to produce on the occupations, health, and amusements of all northern nations.

As regarded the rapid progress of science abroad, and the alleged deficiency of Englishmen in taste and true knowledge of the Fine Arts, Mr. Cole observed that, "whilst he did not fear the results of the first, so he doubted the truth of the latter assertion; he believed that the results of practical science would be brought out, but in those places where their want was most strongly felt, and that England would never be behindhand in applying the discoveries of other countries to practical purposes. The Great Exhibition had taught little or nothing in the department of the Fine Arts to those to whom the subject was already familiar, but it had taught a good deal to the public at large.

In conclusion, the probable future results of the Exhibition were considered, many of them being evidently natural consequences of the great principle of open councils, now first introduced; amongst these were, an improved system of international commercial law; a general uniform system of weights and measures; a general and simple, but scientific, classification and nomenclature of all objects, whether natural or artificial; improvements in the Customs regulations; the abolition of the passport system; international copyright; full and complete international catalogues of all printed books; and, lastly, a better and more comprehensive national education, especially in relation to industrial knowledge.

Thanks to the lecturer were moved by Mr. Tuke, and seconded by Dr. Playfair, who in speaking of the international results already produced, referred to the cerrespondence which has recently taken place with the King of Siam, who, he stated, took the deepest interest in the progress of European science, and had already sent over to buy many of the philosophical instruments which were shown in the Exhibition.

It was announced that a paper by Mr. R. D. Hay, on some further investigations in reference to the geometrical principles involved in the construction of the human frame, would be read next Wednesday.

GREAT EXHIBITION REPORT.

The Second Report of the Commissioners for the Exhibition of 1851 is now printed, and will, no doubt, excite much interest, although the main feature of it, the appropriation of the surplus funds towards an extended plan of industrial education, has for some time been pretty generally known.

EAST INDIAN EXHIBITION.

The following remarks on the Arts and Manufactures of India, abstracted from a letter recently received from Dr. Alexander Hunter, of Madras, will be read with much interest. The labours of this gentleman, not merely in connection with the excellent School of Arts which he founded at Madras, but indeed, it may be said, in the cause of industrial progress generally, in India, are well known; and give to everything he says, the weight and sanction of practical experience:

I have been engaged for several years in trying to attract attention to the resources of India, and have been most cordially assisted by the public, as well as by a number of scientific friends, who have already begun to contribute specimens of mineral, vegetable, and other products, for the Exhibition. I hope also to be able to forward some creditable busts, statuettes, and figures modelled from life, and cast in porcelain, and plaster of Paris, along with a series of botanical, geometrical, and artistic moulds, casts and fac-simile impressions, taken by a newly-discovered process.

The majority of the public in Great Britain are probably unaware of the system on which the Arts and Manufactures are carried on in India; the working classes with very few exceptions are poor, their wants are few, and they have not the ambition that prompts our European artizans to be industrious, as their Caste prejudices prevent them from rising above their own status; and if they earn enough to keep themselves and their families in comfortable circumstances, they are perfectly content. They always expect and obtain an advance in money for everything that they are going to undertake, and there is nothing like competition in quality or price, there being, in general, combinations or agreements to keep articles always at one standard. The arrangements which were made for the Exhibition of last year, were carried out by the Central and Local Committees on this principle of giving advances for such manufactures as required time and labour for their completion; other articles were purchased outright by the Committees, and the public were invited to assist and contribute under the expectation of being rewarded if their contributions were approved of.

A good deal of information was obtained last year regarding the Arts and Manufactures of India. The prices of most articles were moderate, and there was found to be abundance of skill, originality, and taste amongst the manufacturing classes, with a great desire for improvement; but so little encouragement was given in some branches of artistic manufacture, that it was only on an occasion like this that the articles were called for.

The branches of Art which the Society would do well to call for, or to encourage hereafter, are the drawing and designing of patterns, landscapes and views of Indian scenery, figures, antiquities, bronzes, sculpture, and architecture. Some of the East Indians excel in this, and a few of them receive large orders for water-colour and pen or pencil sketches, which they execute for a moderate sum. The natives are very careful copyists, and excel in anything requiring patience or accuracy of detail. Some of their patterns are tasteful and original. Their drawings on talc are characteristic, though out of proportion. There is considerable talent displayed in the modelling of toy figures of the different Castes, and they have long been celebrated for their dexterity in founding bronze images. They are also very expert in executing elaborate and tasteful designs in stucco or chunam, as solid ornaments for gateways in *alto relievo*—for cornices in perforated tracery—for mosques and minarets in floriated ornament, or in a style peculiar to this part of India, viz., the drawing of bold scroll patterns for interior decoration on a flat wall, with a broad continuous line of uniform thickness. This is a branch of Art in which the natives far surpass European plasterers or decorators; it is confined to a few localities in Southern India, and like the celebrated old stone sculptures of the ceded districts, Mysore, Canara, and the southern Mahratta country, it is an important branch of the true Arts, of which very little is known, and the practice of which is gradually dying out from the want of proper encouragement. I need hardly allude to the dexterity of the natives in the carving of wood, the chasing of metals, filigree-work, weaving, and embroidery, as there were specimens of these in the Exhibition of last year, which were deemed of sufficient importance to be purchased as models of taste in design, care in execution, skill in the manipulation, and knowledge in the arrangement and harmony of colours; they have since been placed in our National Schools of Designs, as studies worthy of imitation by our artists and manufacturers. On these grounds I took the liberty of applying to his royal highness Prince Albert, and to the Committee of the Great Exhibition, for assistance to the artists and manufacturers of India, in the form of an exchange of studies, which request I have every reason to hope will be complied with. But there are a few other points connected with India, which I think it my duty to bring immediately to the notice of the Society. These are the cheapness and abundance of the raw materials in India; many of these which are now lying useless might be rendered valuable with a little careful preparation; or if proper attention were drawn to them, manufacturers might be induced to come out to this country. Many of the articles which are now exported from Great Britain are of second or third-rate quality, and some of them are not at all suited to Indian climates, from a want of skill or attention in their preparation, not a few of the manufactures being the unsaleable rubbish of the London shops. The natives are beginning to take advantage of this, and are neglecting their own manufactures to imitate ours. Europeans are also discovering that though our machinery enables us to make cheaper articles, yet in the long run the labour of the hand is much more durable. As instances, I may state that the imitations of our muslins, checks, and ginghams made in this country are not only much more durable, but the colours are far more permanent, and a few of them brighter than those which we produce on cotton goods. The needlework and embroidery are also cheap and good. The toys, string, rope, paper, colours, brushes, pomatum, and a few other articles, which are now being extensively manufactured in India, are so much cheaper than those sent from Europe, that the exports of these articles will soon begin to diminish. Parties frequently receive commissions for some of the above manufactures from India; it is therefore presumed that the Society are anxious that everything of this kind should be represented in the Exhibition.

FOREIGN CORRESPONDENCE.

The following letter, received by the Foreign Correspondence Committee, supplies some valuable information respecting the chief Industrial Societies of Holland:

DUTCH SOCIETIES.

Rotterdam, 30th August, 1852.

Sir,—In answer to your favour of 18th May. I have the honour to send you some information concerning some Institutions in this country which give their attention, directly or indirectly, to the industrial arts, manufactures, commerce, and agriculture. They are, among others,

The Netherland Society of Industry.
Batavian Society of Experimental Philosophy.
Royal Institution of Engineers, and
Agricultural Society in the Province of Holland.

Some years since Agricultural Societies were formed in every province of this country, deriving generally their names from the provinces where they are fixed; their regulations, institutions, and sphere of action, being everywhere the same.

I think you will find in the accompanying documents the information you desire to know.

In my opinion, all those Institutions might, with much advantage to themselves, enter into the Association which the Society of Arts have in view. The Institution best calculated for this purpose is, I think, the Netherlands Society of Industry of Haarlem.

I have the honour to be, Sir,
Your very obedient, humble Servant,
D. R. Gevers Deijoot.

The Secretary of the Society of Arts.

NETHERLANDS SOCIETY OF INDUSTRY.

This Society, formed in 1777, and existing since seventy-five years, gives attention to Industrial Arts, Manufactures, and Commerce.

The source of this Society consists in any private possession, but especially in the annual contributions of the members. There are about 1,200 members, divided in twenty-five departments in different places of the land, whilst the chief seat of the direction is fixed in Haarlem.

It is governed by nine Directors, and one general Secretary.

THE ACTUAL DIRECTION IS:

President.—C. J. de Bruijn Kops.

Travaglino.—D. R. Gevers Deynoot, C. J. Glavimans, A. A. del Court van Krimpen, A. Numan, G. Simons, A. H. vander Boon Mesch, H. C. van Hall.

Secretary—J. A. van Eeden.

The Society publish since a series of years, a periodic work, called, "Tijdschrift voor Nyverheid;" it comes out three or four times in the year, and is given gratis to the members alone. This periodic work is directed by three professors of different academies.

Besides this are yearly published the annual transactions, and the programme of medals and prizes, which the Society discerns to different branches of industry.

BATAVIAN SOCIETY OF EXPERIMENTAL PHILOSOPHY, ROTTERDAM.

The objects of this Society, founded, in 1769, by Steven Hoogendijk, are; generally to assist in the advancement, development, and practical application of natural philosophy in connection with the arts, manufactures, commerce, marine, and rural economy of the country.

The members are: 1st, Honorary members. 2nd, Members of the administration. 3rd, Members of the direction. 4th, Advising members. 5th, Corresponding or Foreign members. 6th, Ordinary members.

The Society is governed by a general meeting of all the inland members, assembling every other year, a *præses magnificus* in the chair. In the mean time an administrative and a directorial council, independent of each other, are the leading parties; the administrative council has all the financial, the directorial council, the scientific and domestic parts; both bodies have their several monthly assemblies, and as often as required, together with the *præses magnificus* combined meetings. The following are the Officers for the present:

Protector.—His Majesty the King of the Netherlands.

Mæcenas.—H. R. H. Prince Frederick of the Netherlands.

Præses Magnificus.—T. F. Hoffman, Lord Mayor of Rotterdam.

Administrative Council.—J. H. W. Swellengrebel, A. L. Coenen, A. T. Prins, D. R. Gevers Deynoot, T. van Vollenhoven.

Directorial Council.—D. F. van der Pant. *Pres. and 1st Sec.*—C. Dalen, C. J. Glavimans, A. G. van Stipriaan Luicius,—P. van Galen, *Der and 2nd Sec.*

The Society takes its revenue from fixed property bequeathed by the founder.

The Society applies its sphere of action in different ways; viz., by

1st, Proposing every other year several questions on practical parts of natural philosophy, in connection with the objects above specified; and by awarding gold or silver medals, and other rewards, for the best scientific productions.

2nd, Monthly meetings in the winter season, of the members resident in Rotterdam, in which lectures on various subjects are proposed, or experiments made.

3rd, Appointing twice a week in the winter evenings, lectures on natural philosophy, and its applications as well popular as scientific. A small admission is paid by such auditors who are not members of the Society; the expenses, however, are not covered by these contributions.

4th, Publishing periodic accounts of their transactions, wherein also appear the answers to the proposed questions which have obtained prizes, memoirs sent in, &c. One or two volumes 4to, are generally published every other year. These transactions the Society exchanges for those of the principal academies or societies in and out of Holland.

5th, Allowing the members, and also the public by application, free admission to their Library and Museum of Instruments.

ROYAL INSTITUTION OF ENGINEERS.

This Institution was founded in 1848, and incorporated under the above name by Royal Charter in 1848. Its objects are the advancement of the engineering arts and sciences in the most general sense of the term. The seat of the Institution is Delft, where the Royal Academy for Civil Engineers is established It is governed by a president, vice-president, four members, a treasurer, a librarian, and a secretary, who form a council.

The following gentlemen are the Officers for the present year:

Protector.—His Majesty the King of the Netherlands.

President.—F. W. Conrad.

Vice-President.—G. Simons.

Members.—H. F. C. Forstner van Dambenay, L. S. A. van der Kun, C. F. van Meurs, J. W. L. van Oordt.

Treasurer.—A. Greve.

Librarian.—D. J. Storm Buising.

Secretary.—B. C. A. Staring.

The Institution consists at present of 313 members, and its revenue is mainly derived fron the individual contributions of the members, and donations.

The mode of operation is by a quarterly meeting of all the members, at which various proposals and other objects are discussed, calculated to advance the interest of sciences and arts, and rewards allowed for inventions, treatises, &c. The Institution publishes periodical accounts of its transactions, which are delivered gratis to the members.

AGRICULTURAL SOCIETY IN THE PROVINCE OF HOLLAND.

This Society was formed in 1847. Its object is to forward the improving and practical application of agriculture, horticulture, cattle, breeding-manufacturing of cheese and butter, the culture of wood, plants, flowers, and every other subject connected with rural improvement in the provinces of South and North Holland.

It is governed by a President, four members, a treasurer and a secretary, who form a council, elected at a general meeting of the Society. They perform the duties of their functions gratis. The following are the officers of the present year.

Protector.—His Majesty the King of the Netherlands.

President.—F. A. van Hall

Members.—D. P. Gevers van Endegeest, Baron P. H. Taets van Ameriongen, G. F. van Tets, Baron B. A. van Verschuer.

Treasurer.—H. Hoeufft van Velsen.

Secretary.—D. R. Gevers Deynoot.

The Society is divided into forty departments, in the different districts of the provinces of South and North Holland. The number of members is about 6,000, each member paying an annual contribution of two gilders and a half,—about four shillings.

The Society tries to promote its object in various ways. By an annual general meeting consisting of deputies of all the departments of the Society. By meetings of the members in the different parts of the provinces. By proposing prize questions on practical parts of agriculture. By a great general cattle show and exhibition of all products of rural economy, and by many cattle-shows and exhibitions held by the different departments of the Society in their respective localities. By publishing periodical accounts of their transactions, under the title of *Mlededeelingen en Berigten vanhet Hoofdbestuur en van de Afdeelingen der Hollandsche Alaatschappy van Landbourd.* The work is published quarterly, and distributed gratis to the members. It contains observations and practical operations of the members, the program of the general exhibition and its results, and an account of medals and prizes discerned by the Society for the best agricultural productions: and by whatever seems proper to encourage agriculture in general, and to promote the comfort and welfare of husbandmen.

COLONIAL CORRESPONDENCE.

Want of space last week prevented the insertion of the following letter from Berbice, referred to in Governor Barkly's Dispatch from British Guiana. The suggestions respecting the dried fruit of the plantain, the manufacture of plantain fibre, and the improvement of sugar-cane mills, are well deserving of attention.

BERBICE.

Reading Society,
Berbice, 15th July, 1852.

Sir,—A printed copy of your letter of 26th March last to the Secretary of State for the Colonies, has, by his Excellency the Governor, been handed to us, accompanied by an invitation to open a correspondence with your Society, for the purpose of promoting the objects set forth in the enclosure contained in your letter. The Committee of the Reading Society, fully appreciating the importance to an agricultural and manufacturing country like this, of communication with a body devoted to the development of improvements in the arts, manufactures, and commerce, gladly avail themselves of this invitation, and have accordingly appointed the undersigned to commence the correspondence.

There are many natural productions in this Colony which doubtless will one day be found to possess commercial value, and we should be happy to forward to your Museum any specimen that may promise to prove such, if you would kindly furnish us with general instructions as to the nature of the objects likely to be acceptable, and the mode in which they should be forwarded. Possibly our forests may contain Gutta Percha, Indian Rubber, Ivory Palm, and other valuable trees, but as yet undiscovered. Had we drawings of these plants we might set the Indians to search for them.

This country abounds in plants yielding a most excellent fibre for ropes or cloth ; also in trees yielding valuable gums and materials for dyeing; but these matters hitherto have been little regarded. But there is one subject which would meet with immediate attention, and is of great importance ; viz., the method of drying and preserving plantains, which we observe is described, in Professor Lindley's lecture, as being carried to such excellence in Mexico, that the plantains have kept good for fifteen years. We fear the moisture of this climate would be against their keeping so long here; but to be able to preserve them for a few months only would be a very great advantage, as it is the principal food of the people. A description of the process used in Mexico would be most acceptable.

We should be very glad to receive copies of the printed proceedings of the Society of Arts, and will direct our booksellers, Messrs. Smith, Elder, and Co., of Cornhill, to purchase them for us if they are for sale.

The Reports of your Special Committees presiding over such departments as concern us, as Sugar-planters, would be of great value to us. There are inventions and patent improvements continually offered to our notice, and we often feel the want of the disinterested judgment of scientific men to guide us.

We may, perhaps, be allowed to mention the subjects on which we are more particularly desirous of obtaining information. They are chiefly mechanical.

The only staple commodities we export from British Guiana now that cotton and coffee have ceased to be cultivated, are sugar, rum, and molasses,—all the products of the sugar cane. This valuable plant is said to be composed of ninety parts in a hundred of fluid, and ten parts of solid substance ; and the first operation in sugar-making is to separate the one from the other. This is performed in this Colony by crushing-mills, with three horizontal rollers, worked by steam engines. From these mills we seldom obtain more than 60 or 70 per cent. of juice, often less. Any improvement in these mills, or better substitute for them, is a great desideratum. Of the cane-juice when obtained, three-fourths have to be evaporated by boiling; consequently a rapid and economical method of evaporating liquids is an object of the greatest importance to the planter. He is also deeply concerned in improvements in the construction and mode of working of steam engines and boilers, of pumps and contrivances for raising water,—also in draining-engines for discharging large quantities of water, with a lift of four or five feet ; in stills and apparatus for making and rectifying spirits ; in machines for curing sugar, or separating it from its molasses ; in cranes, &c., for lifting heavy weights ; in cheap roofing or covering for large buildings. Also in steam ploughs, and modes of cultivating land by machinery, for which this flat country is better adapted than most others. Our cane-fields are all rectangular figures, about 300 yards long, by a width of 150 or 160 yards, and surrounded on three sides by navigable canals, capable of floating punts drawing two feet water; so that if steam engines can ever be used for tilling the land, our canals offer great conveniences for their operations, and our soil being an alluvial clay, free from all stones, would be admirably suited for the purpose.

The successful adaptation of machinery to the tillage of the land in this country would be the greatest possible boon we could receive,—the only limit to the production of sugar in British Guiana is, the supply of labour, which is lamentably deficient. With plenty of labour, or mechanical substitutes for it, we would not fear competition with any part of the world.

Such are a few of the subjects on which we should be thankful for instruction, and we hope it will be in the power of your excellent Institution to furnish information that may be of practical utility to this Colony.

We have but little to communicate in return, but will willingly co-operate with the Society of Arts in furthering the wishes of the Council, if you will be good enough to point out to us in what way we can make ourselves useful.

We are, Sir, your obedient Servants,

James Laing,
Alexander Winter,
R. Barnes.

The Secretary of the Society of Arts.

HOME CORRESPONDENCE.

DIAGRAMS.

Literary Institution, August 14th.

Sir,—It did not occur to me at our Committee Meeting on Tuesday that it would be convenient, and of great benefit for local lecturers to be enabled to obtain the necessary diagrams, models, and drawings for the illustration of lectures, but I have since considered the subject, and would suggest that if the parent Society would, on moderate terms, lend the appropriate illustrations, which are attainable in the country only at a great expense of time and money, and then only serve for one lecture, many gentlemen would come forward and give lectures at the various Institutions with which they are connected, and these bodies would obtain a great amount of information at a far less expense than if they hired a professional lecturer on the subject.

I have myself been deterred from volunteering to lecture in our Institution, because, being in extensive medical practice, I have not the time to execute the necessary drawings and diagrams in order to give proper effect to a lecture on Natural History, Physiology, Electricity, Hydraulics, and other subjects of Natural Science. I should think the Society could procure the necessary apparatus at a small outlay, which would quickly be repaid by their charging a small sum for the loan of each series.

Perhaps you will kindly suggest this to the Committee of the Society, as they are so good as to ask for any proposition which may advance the interests of the Institutions connected with them.

I am, Sir, your obedient servant,
G. F. W.

E. Solly, Esq., Sec. Soc. Arts.

MUSEUMS.

Mechanics' Institute, 17th Sept. 1852.

Sir,—Although of opinion that the most easy way in which the different Institutions could contribute to the formation of local museums would be by sending these contributions to London, and distributing them from that point to the different places requiring them, yet we are quite as willing to adopt the plan indicated by your circular of the 28th August (marked B. Museums 2), and will on our part assist as much as we can. We think that collections from the Staffordshire iron, lime, and coal district may be formed, and have appointed a sub-committee for that purpose, but it will be some time before such collections could be got ready.

In the mean time *at once* we will send to any Institution wishing for such a collection, and willing to supply us with corresponding collections of either their manufacturing or other processes, a box containing specimens of all the new materials used in the manufacture of earthenware and china, and also specimens of the article in every stage of its progress, from the first rude form until it is fit for market.

With the gentlemen mentioned as belonging to "one of the midland counties," we are ready to make the exchange referred to.

The most acceptable collections to us would be those illustrating the geology, mineralogy, &c. of different formations.

I am, Sir, yours sincerely,
J. S.

Edward Solly, Esq., Adelphi, London.

LOCAL EXHIBITIONS.

———, 2nd August, 1852.

Sir,—I take leave to bring under your notice a subject which has been talked over by some of the members of the Institution here, but in doing so you will understand that it is not in an official capacity that I write.

It was proposed to have an Exhibition here in the summer of 1853; and in discussing the manner in which it should be carried out, it was at first suggested to make it a national affair, at least as regards Scotland, something like the Cork Exhibition. This gave rise to another idea; namely, to extend the nationality to Great Britain, and that it should be the first of a series of Annual Exhibitions in different places of the kingdom every year,—the second to be in England, say Leeds or Sheffield,—the third to be in Scotland, Glasgow or Paisley,—and so on, so that it might not be in consecutive years in one part of the country. The profits arising to be for the benefit of the Institutions in the respective places or neighbourhoods where the exhibition was held.

It was conceived that the scheme might be taken up by the united Institutes, by which mutual assistance could be rendered. A building could be devised of such a nature as to be removable from one place to another by rail, and so contrived that additions could be made to it should that be found necessary. It is probable that for such places as Glasgow, Liverpool, or Manchester, the same size of a building would not suit as for smaller towns.

Could such a scheme be organized and carried into operation, it is believed that it might be the means of largely benefiting local Institutions; and the extent and facilities now possessed of communication by means of railways, gives every reason to believe that if properly got up they would be successful.

Without entering into further details, I place the proposition before you, as requested, leaving it for your more deliberate consideration.

I am, Sir, yours faithfully,
A. Y.

Edward Solly, Esq.,
Society of Arts, London.

TAXES.

9th Sept., 1852.

Sir,—I think, myself, that Institutions should be exempt from taxation: the Literary and Scientific Societies' Act seems, however, to have proved almost a dead letter; though there cannot be a doubt that Mr. Wood's intention in introducing it, was to benefit Mechanics' and similar Institutions. There seems, at present, to be no clearly defined idea, as to who is, and who is not liable to taxation. We did hope, a short time ago, to have escaped; but Lord Campbell's late decisions appear to have strengthened the Overseers, &c., in enforcing the rates. This Institution pays from forty to fifty pounds a year in taxes, though no sum whatever comes into the exchequer that is not applied to the wants of the members. We have no shareholders; we give no bonuses; all our officers are non-members. The property belongs to the members, and they alone receive the advantages which their subscriptions afford. I think education should be free as trade and commerce, and if you can, by your influence, still further remove the barriers to progress by freeing education from taxation, you will have effected a decided public good. There are those who think Institutions should be taxed equally with private persons. Yours most truly,

E. Solly, Esq. H. S.

Bristol, Nov 29th, 1852.

DEAR SIR,—The Society of Arts would confer a great boon on Athenæum and Mechanics' Institutions, by using their influence in obtaining some amendment in the law, 6 and 7 Vict. c. 36, relating to the exemption of Scientific and Literary Societies, from parish and other local rates. I have now before me a report of appeals which have been made by various Institutions against their local rates, and although the society may have obtained the certificate of John Tidd Pratt, Esq., that the society *was entitled* to the benefit of the Act before referred to, yet, in almost every instance the appeal of the Society was insufficient: surely the various technicalities of the law in this respect require alteration. To obtain exemption a society "must be instituted for purposes of science, &c., EXCLUSIVELY," "must *solely* occupy their premises," "must not make any dividend," "lecture-Hall or theatre must not be let," &c.

I am, dear Sir, yours faithfully,
B. G.

MANCHESTER COLLEGE OF ARTS AND SCIENCES.

Norwich, Nov. 27.

SIR,—As the subject of Industrial Education and Working Men's Colleges is now exciting a good deal of attention, I venture to draw attention to the Manchester College of Arts and Sciences, which was founded in 1783 by Dr. Barnes. There seems to me to be so much that is true and sensible in the plan or prospectus of that Institution, that I should be glad to be informed what was the fate of the college, and why it was given up:—possibly your correspondents at Manchester may be able to give some account of it. In the printed proposal for establishing this college, Dr. Barnes says: "It is proposed that several gentlemen shall unite together in delivering a course of liberal instruction in languages, the *belles lettres*, history, commerce, law, ethics, natural philosophy, chemistry, and mathematics;" and a sketch of the nature of the college was printed as soon as it was established, because it was thought desirable "that similar establishments should be formed in other large towns." The college certainly was established, for in the printed account it is stated that lectures were delivered to large numbers of persons during two sessions, and further, that the college was under the patronage of the right honourable the Earl of Derby, who was "happy by every means in his power to promote an undertaking carried on upon such liberal principles, and directed to such a noble and beneficial object." It would be very interesting to know why so excellent a scheme, supported by the talent of Dr. Percival, Mr. Henry, and the other learned men living at Manchester at that period, and having at the same time "Right Honourable" patronage, came to an untimely end.—I am, Sir, yours obediently,

T. C.

REPORTS OF INSTITUTIONS.

DENTON AND HAUGHTON MECHANICS' AND LITERARY INSTITUTION.

THE Second Annual Report of this Institution while lamenting the indifference and carelessness of the adult labouring population of the neighbourhood, for whose especial benefit it was designed, expresses the belief that, in the younger members, they have a pledge of future prosperity. The reading-room and lectures have not been so numerously attended as was expected, but the number of books issued from the library has been pretty uniform, and the progress of the classes satisfactory. From the Treasurer's statement of accounts, it appears that,

The receipts during the year have been	£80 15 0
The expenditure do.	76 10 11
Leaving a balance of . . .	£4 4 1

The following are the officers for the ensuing year.

Patrons—The Right Reverend the Lord Bishop of Manchester; The Right Hon. the Earl of Wilton; J. F. Fletcher, Esq., and J. Sidebotham, Esq.

President—W. Peacock, Esq.

Vice-Presidents—Messrs. J. L. Rockliffe, and M. Taylor.

Treasurer—Mr. J. Barker.

Hon. Secretary—Mr. J. Lupton.

Librarian—Mr. J. Holroyd.

MACCLESFIELD USEFUL KNOWLEDGE SOCIETY.

THE Annual Meeting of this Society took place on Tuesday evening, the 23rd ult., in the Town Hall, Macclesfield. The Mayor, in the absence of the President, John Brocklehurst, Esq., M.P., took the chair.

The Secretary, Mr. D. B. Curwen, read the Report, from which we make the following extracts:

"The originators of this Society felt that, in a town like this, containing so many thousand persons, it was absolutely necessary to provide means whereby the minds of the middle and working-classes might be awakened, elevated, and improved. They, therefore, endeavoured to provide the means. They knew that this would entail upon them an arduous and anxious task, but knowing, 'that there is nothing truly valuable which can be purchased without pains and labour,' and feeling confident they should succeed in the object they had in view, they set about their work with a good heart, and in right earnest, and their labours have been rewarded in the success of their Institution, which now ranks the first and foremost in the town.

"It will be remembered that in the last Report, the Committee announced the formation of the Macclesfield School of Design, which is now conducted by its talented master, Mr. G. Stewart, in the spacious room erected and appropriated for it by this Committee. They are happy to state that many of the Society's pupils avail themselves of the privileges afforded them by the School, and the Committee therefore, annually contributes to its funds.

"At the commencement of the present year, circumstances occurred which rendered it incumbent on the Committee to consider the necessity of establishing an extra Reading and News Room, their then only Reading-room (though large) being often inconveniently crowded, and incapable of affording the necessary accommodation to the members. Though the Committee considered that they should not be altogether justified in providing the whole additional expense from the Society's funds, as then constituted, yet they also considered that it was their duty to provide for the accommodation of the Honorary Members, by whose subscriptions the Society is mainly supported, and whose principal, and, in many instances, only return for their subscriptions are the privileges connected with the Reading and News Room, and Library. Under these circumstances, and after mature consideration, the Committee proposed to the Honorary Members, the payment of an additional subscription of 5s. annually towards the extra expense, and this proposition having been cheerfully and generously acceded to by many of them, the Committee opened an additional Reading and News Room in March last, which is now attended by nearly seventy Honorary Members, each subscribing 16s. per annum to the Society's funds. * * * Shortly after the establishment of this room, the Committee directed their attention to the formation of a Female Class, an object they have had in view for some time, and they are happy to announce that they have succeeded in forming such a class, and that it is regularly attended three times a week by a considerable number of females, who, under the care and guidance of Mr. Malborn are progressing rapidly in reading, writing, and arithmetic, and under the kind care and instruction of several ladies, are also engaged in learning sewing, knitting, and other female accomplishments. * * * The formation of this class is only part of a scheme the Committee are desirous of effecting, and which they hope their successors will be enabled to accomplish, namely, the formation of Female Classes in union with the Society, similar to those belonging to the Mechanics' Institutions in Liverpool and Manchester, and which have been productive of great benefit to both those towns. * * *

"The Committee are sorry to say, that they still find the providing of lectures a profitless affair; they have, therefore, only had one lecture during the year. They again regret that lectures on useful and beneficial subjects, when provided for the members, should be so thinly attended. * * * * *

"The Committee have much pleasure in stating that all the classes are progressing well and favourably, and that the character of the Society, for imparting sound and useful knowledge, has been this year maintained in all its efficiency: and that the teachers deserve the thanks of their pupils, the Committee, and the town.

The receipts during the year have been	£511	12	6
The expenditure	504	2	4
Leaving a balance of	£7	10	2

"The Committee have to report that their classes are overflowing, while their means of accommodation are limited, and their capabilities of doing good are cramped for want of room. They are, therefore, desirous of being enabled to commence their oft-proposed Lecture Hall, which, in addition to its use for lectures, concerts, &c., might also afford increased accommodation to the various classes; and they recommend their successors, as soon as they have reduced the present heavy debt on the building (about 900*l*) to commence a subscription for the Lecture Hall."

The meeting was then addressed by the Rev. W. R. B. Arthy and Mr. Richard Wornum; after which the Secretary read the Reports of the Teachers of the different classes,—French, Geography, History, Grammar, Reading and Dictation, Mathematics, Arithmetic, Stenography, Reading, and Writing, and the Female Class. The average number of members in these classes is about forty-five. In all cases the reports state the progress to have been most satisfactory. The distribution of the prizes which had been awarded by the different teachers then took place.

The following gentlemen were elected to fill the several offices during the ensuing year:

Patron—The Most Noble the Marquis of Westminster.

President—John Brocklehurst, Esq., M.P.

Vice-Presidents.—The Right Hon. Lord Stanley, (of Alderly), T. Broderick, J. Williams, S. Greg, J. Wright, and T. R. Daintry, Esqs.

Treasurer—R. Bagshaw, Esq.

Hon. Sec.—Mr. Curwen.

Sec. and Libr.—Mr. T. Kelly.

Committee — Wm. Adshead, Esq., Mayor; Messrs. J. Arnold, W. Bullock, T. Bullock, W. Cornes, B. Fawkner, W. Norris, W. Potts, J. Smith, G. Tipping, R. Wilson, J. Birch, J. G. Booth, J. Brunt, W. Jones, W. Jeffrey, W. Mee, J. Moss, J. Platt, W. Smale.

Auditors—Messrs. W. May, jun., G. Barton, and J. O. Smith.

PROCEEDINGS OF SCIENTIFIC SOCIETIES.

Royal Scottish Society of Arts.—Nov. 22. The first meeting of the thirty-second session of this Society was held on Monday evening in the new hall of the Society, opposite the Assembly-rooms, when an introductory address was delivered by Dr. George Lees, the retiring President.

Dr. Lees said that while he had to congratulate them on the increasing prosperity of the Society in regard to numbers, and in regard to the general excellence of the papers which had been submitted to their notice, they had to deplore the loss of several of its most prominent members. After paying a just tribute to the memory of Mr. Grainger, C. E., Sir W. Newbigging, and Mr. Buchanan, C. E., he remarked, that, in looking back on the history of science, he could not help coming to the conclusion that, with the exception of mathematics and astronomy, they were under no very great obligation to the philosophy of the ancients for the knowledge which they now possessed. Indeed, the ancient philosophers, for the most part, knew nothing of science. Even when it was discovered that the principles of mathematics might be applied to the improvement of mechanics, the attempt was discouraged on the ground that philosophy was degraded by being made subservient to purposes of mere vulgar utility. Dr. Lees then alluded to the inductive philosophy of Bacon, which inverted the order of study of the ancients. But, without detracting from the merit of Bacon's great work, it seemed, he said, to be the general opinion that science would have progressed just as well, though the *Novum Organum* had never been written. He then reviewed at some length the vast achievements of physical science since the time of Newton, and stated his opinion that, while metaphysicians complained of this "mechanical age," their inquiries had done nothing to ameliorate the condition of man, or raise him in the scale of intelligence; and that, while metaphysics was ever moving in a circle, ending where it began, physics was pre-eminently a science of progress.

The office-bearers for the present session were then appointed. Mr. David Stevenson, C. E., being chosen President, and Mr. Robert Ritchie, and Dr. Daniel Wilson, Vice-presidents.

SOCIETY OF ANTIQUARIES, Nov. 25.—This Society has been in a state of excitement for nearly twelve months, in consequence of an alteration in the payments originally suggested by the Treasurer. Instead of an annual payment of four guineas, he suggested a payment of two guineas, and further proposed to reduce the entrance fee from eight guineas to five guineas. The Society confirmed this proposition last Session by a majority of fourteen. But the movement was strongly opposed by Mr. Pettigrew, who moved an amendment to the effect, "that any reduction in the amount of the annual subscriptions appeared to be uncalled for and injudicious." The question was again brought forward at the meeting of Thursday last, when the reduced subscription was opposed by Mr. Lott and Mr. Pettigrew, and supported by Mr. Tite and Mr. Drake, the latter arguing that by reversing the rules so lately promulgated, the Society would stultify itself; whilst Mr. Pettigrew asserted that the depressed state of the Society was not caused by the high subscription which Fellows had to pay, but arose solely from the want of activity and energy in the Council. On the ballot being taken, there was found to be a majority of eleven in favour of the low rate, or four less than in the previous Session.

BOTANICAL SOCIETY OF LONDON, NOV. 29TH.—J. E. Gray, Esq., F.R.S., President, in the Chair. This was the Sixteenth Anniversary of the Society. MR. G. E. Dennes, the Secretary, read the Report of the Council, from which it appeared that fourteen new members had been elected since the last meeting, and that the Society now consisted of 302 members. Many thousands of specimens of British and foreign plants had been distributed to members and numerous Continental botanists, and increased exertions had been made this year to render this important department of the Society's operations more efficient, and already numerous valuable specimens had been received, for distribution to the members in January next. Various donations had been made to the library by members, and by British and Foreign Scientific Societies. The report was unanimously adopted; after which, a ballot took place for the President and Council for the ensuing year. When the President was re-elected, and he nominated John Miers, Esq., F.R.S., and A. Henfrey, Esq., F.R.S., Vice-presidents.

John Ball, Esq., M.P.; F. P. Pascoe, Esq., F.L.S., and J. T. Syme, Esq., were elected new members of the Council, in the room of Dr. Palmer, J. Coppin, Esq., M.A., and J. Woolett, Esq. The Secretary and Librarian were re-elected.

INSTITUTION OF CIVIL ENGINEERS, NOV. 30TH.—J. M. Rendel, Esq., President, in the Chair. The evening was entirely devoted to the discussion of Mr. Rawlinson's paper, "On the Drainage of Towns." The town of Itchen was given as an example, where 60,000 feet of pipe sewers from 20 inches diameter downward, had been in action for four months with perfect success; the average depth below the surface was eight feet, and the outlet of the main sewer, which was 5,000 feet in length, and only 20 inches in diameter, was laid beneath the bed of the river, at an inclination of 1 in 800. This was designed for the sewerage of 1,000 houses, of which only 200 were at present connected, and 1,100 acres of urban and suburban drainage. In the instance of Manchester, where, during the last eight years, a great extent of oval pipe drains, 25 inches by 18 inches, had been laid with success, it was explained that they were 2½ to 3 inches in thickness, and were laid with great care in very strong ground. The maximum size at which, even these thick pipes were preferable to brick sewers, was 36 inches by 24 inches. The smallest size made for small streets was 12 inches by 9 inches, and for foul water only 6 inches by 4 inches. The largest area draining into a pipe sewer was fifty acres. It was admitted that, for pipe drains laid at a depth of 15 feet, 12 inches or 15 inches diameter, was the utmost limit of practical utility; above that size brick sewers would be preferable—particularly if hollow bricks were used. A brick sewer of 3 feet in diameter, would cost as little as a pipe drain of 20 inches diameter. The latter had only been adopted at Itchen, on account of local difficulties, which were by these means more readily met. It was contended that the ordinary rain-fall must be provided for in the size of the sewers, or else great injury to property must constantly ensue; that with due precaution, there was little actual danger in excavating among houses for large sewers; that in sewering a town, the ultimate expense must be the main consideration, and if the streets were to be constantly torn up to discover stoppages, not only would the expense be much increased, but the inconvenience it would cause would be incalculable.

PROCEEDINGS OF INSTITUTIONS.

BIRMINGHAM.—At the instance of the Polytechnic Institution, Mr. George Dawson recently gave a lecture in the Town Hall, on "Wellington and Napoleon; a Parallel and a Contrast." The lecture, which was very numerously attended, entered into a minute analysis of the characters and ambition of the two warriors; and was concluded with the expression of the belief that as peace became more loved, war more hated, and men just, would Wellington's name abide in far more honour than Napoleon's.

BRISTOL.—Mr. Harwood's second lecture at the People's Institution, on "The Railway System," was chiefly directed to a consideration of the social effects of the system. The lecturer stated that the facilities afforded by railways, enabled the principle of the division of labour to be carried to an unparalleled extent, by which means the whole community experienced a permanent advantage, in the increased cheapness of all articles of production. Agriculture was benefited by a cheap and speedy transit of lime and manures, and of agricultural produce. But the railway system, as well as improving the physical well-being of man, had tended greatly to develop the moral well-being, and had in many districts fixed the standard of education, by the necessity for men learning to read and write, in order to qualify themselves for employment under railway companies.

Cheadle.—On Wednesday evening, the 24th ult., the first lecture of the season at the Mechanics' Institution was delivered by the Rev. C. P. Wilbraham, Vicar of Audley, on "The Difference between Civilized and Savage Life."

Darlington.—On the 23rd ult., Mr. James Cooke delivered a lecture at the Mechanics' Institution, on "The Manufacture of Iron." Specimens of ore from many countries were exhibited, and the peculiarities of each distinctly pointed out. The process of smelting was explained, and the different methods employed in treating the various kinds of ore, and the yield obtained from each were described.

Leeds.—Dr. Reinhold Solger gave the first of two lectures, at the Mechanics' Institution and Literary Society, "On the Kings and Courts of the Eighteenth Century." The problem which the learned Dr. attempted to solve, was to ascertain how it was that continental Europe exhibited so strong a contrast with Great Britain, in regard to constitutional liberty. Ascribing much to the mixture of races, he still thought more of the stability of England arose from her position, which had enabled her to escape territorial war; while, paradoxical as it might seem, he believed that our *civil* wars had served to develop the best elements of our national character, and secure that civil and religious liberty which Englishmen so justly boast of. In referring to France, Dr. Solger drew a fearful picture of the evils of absolutism, from the memorable 10th of April, 1665, when Louis XIV. told the parliament of Paris that their function was to record his decrees, not discuss them, through nearly two centuries of corruption, profligacy, and wrong.

Modbury.—A Lecture was delivered at the Institution in this town, on Thursday, November 25th, by Dr. Shortland, of Plymouth, "On certain plants which grow on living animals, causing disease or death." The discoveries which the microscope had revealed, in regard to the fact of certain species of parasitic fungi being found living on the animal frame, were brought prominently forward by the lecturer, in a very interesting manner.

Newcastle.—The anniversary meeting of the Mechanics' Institution was held under the presidency of the Mayor, N. G. Lambert, Esq. The meeting was addressed by Mr. Greenhow, "On the Advantages of Mechanics' Institutes in cultivating the Mind." After some preliminary remarks on the origin and objects of Mechanics' Institutes, and the privileges enjoyed by the members of such bodies, Mr. Greenhow stated that already six classes were formed, by which instruction was given in chemistry, geometry, arithmetic, grammar, and the English, German, and French languages. In addition to these classes there was a library, containing from 8,000 to 10,000 volumes, and a reading-room, well supplied with local and metropolitan newspapers. The meeting was afterwards addressed by Mr. Crawshay, Sir John Fife, Mr. Rea, and Mr. Harle.

Sherborne.—A very crowded meeting assembled in the Town Hall, on Friday evening, to hear the Rev. J. H. Davies deliver his Lecture to the members of the Literary Institution, on, "The Peninsular War, elucidating the character of the Duke of Wellington." The subject is stated to have been most brilliantly treated, and the lecture to have been an historical essay equal in grandeur and impressiveness to the writings of many of our first authors.

Southampton.—"Newspapers" formed the subject of an interesting lecture, by the Rev. S. S. Pugh, at the Polytechnic Institution on Wednesday evening. After citing the testimonies borne to the value of a free and unfettered press by the great men of past and present ages, the lecturer entered upon a carefully prepared review of the history and progress of the newspaper press, from the first circulation of manuscript "news-letters" down to the present time, when it might be said to rank as the fourth estate in the realm. The first imposition of taxes on knowledge, and the crippling effect they had on the advancement of a cheap and wholesome literature, were noticed, and the necessity for their speedy abolition ably and powerfully argued.

Uttoxeter.—A very interesting lecture on "Assyria, and the Buried Palaces of Nineveh," was delivered at the Literary Institution, on the 19th ult., by the Rev. J. A. Baynes, of Nottingham.

Uxbridge.—On Tuesday evening, the 23rd ult., a lecture was delivered by Martyn Roberts, Esq., F.R.S.E., at the Literary and Mutual Improvement Society, "On the application of Electricity to the Arts." The process of electro-plating was first explained, the production of light by electricity, and the principle of electric clocks being taken in succession. The Lecturer then described, in a lucid and clear manner, the nature of the electric-telegraph, and gave a brief sketch of its history.

Windsor.—The first of a course of lectures, "On the Physiology of the Senses," by W. Rayner, Esq., of Uxbridge, was recently delivered at the Literary, Scientific, and Mechanics' Institution. This lecture, which was illustrated by a number of elaborate diagrams, was confined to the consideration of the Sense of Touch.

MISCELLANEA.

Forbes's Cylindrical Ship Life-boat.—This Life-boat is thirty feet long, eight feet wide, and two feet deep, and is said to be capable of carrying with ease sixty persons, with provisions for a week, in the air-tight seats; cannot be upset, or swamped; can be pulled either end-foremost; can be steered with an oar; has extra buoyancy in water-tight compartments; and is so constructed, that a hole may be knocked into one or more divisions, without danger to the whole. She stows the following stores: masts, sails, oars, and everything complete, so as to be always ready for use on any sudden emergency. When folded up, it is perfectly cylindrical; and on reaching the water, opens out, and can in a minute be made a stiff boat; and the dimensions can be modified to suit any vessel.

CLEOPATRA'S NEEDLE.—The fate of this monument has at length been decided through the exertions of the Crystal Palace Company. Lord Derby permits the removal of the column, and its erection in the Sydenham grounds, upon condition that the Government may hereafter reclaim it on payment of all expenses incurred in the transit. Steps have been already taken to effect the removal of the column. It is understood that his highness the Pasha will afford the Directors every facility on his side of the Mediterranean, and that other interesting works of antiquity from Luxor and Karnak will accompany Cleopatra's Needle from the Egyptian shores.

DISCOVERY OF AN ANCIENT CITY.—Captain Alfred K. Fisher, of this town, informs us, that when on the last whaling voyage, in the ship *America*, of New Bedford, which was about eight years ago, he had occasion to visit the island of Tinian, one of the Ladrone islands, to land some sick men. He stopped there some days. One of the men, in his walks about the island, came to the entrance of the main street of a large and splendid city in ruins. Captain Fisher, on being informed of the fact, entered the city by the principal street, which was about three miles in length. The buildings were all of stone of a dark colour, and of the most splendid description. In about the centre of the main street he found twelve solid columns, six on each side of the street; they were about forty-five or fifty feet in height, surmounted by cap-stones of immense weight. The columns were ten feet in diameter at the base, and three feet at the top. Captain F. thinks the columns would weigh about sixty or seventy tons, and the capstones about fifteen tons. One of the columns had fallen, and he had a fine opportunity to view its vast proportions and fine architecture. From the principal street, a large number of other streets diverged. They were all straight, and the buildings were of stone. The whole of the city was entirely overgrown with cocoa-nut trees, which were fifty and sixty feet in height. In the main street pieces of common earthenware were found. The island has been in possession of the Spaniards for a long time. Six or seven Spaniards resided on the island when Captain Fisher was there. They informed him that the Spaniards had had possession about sixty years; that they took the island from the Kanakas, who were entirely ignorant of the builders of the city, and of the former inhabitants. When questioned as to the origin of the city, their only answer was, "There must have been a powerful race here long ago." Here is food for a speculation. Who were the founders of this once magnificent city in the North Pacific, and what has become of their descendants? —*United States Gazette.*

MONUMENT TO DAGUERRE.—The *Société Libre des Beaux Arts*, Paris, have erected a monument at Brie-sur-Marne, to the late M. Daguerre, well known by his dioramas and the process of sun painting which bears his name, and on the 4th inst. they met to inaugurate it. The monument is simple. A railing of iron surrounds a monumental pillar, which is on a granite pedestal: the upper part of the pillar carries a medallion portrait of Daguerre by M. Husson. M. Rohault de Fleury was the architect.

PHOTOGRAPHY: THE FIXATION OF COLOURS.—M. Niepce de Saint-Victor laid before the Paris Academy of Sciences, at the sitting of the 8th of November, daguerreotypes upon which he had succeeded in fixing, in a manner more or less permanent, colours by the camera obscura. M. Niepce states, that the production of all the colours is practicable, and he is actively engaged in endeavouring to arrive at a convenient method of preparing the plates. "I have begun," he says, "by reproducing in the dark chamber coloured engravings, then artificial and natural flowers, and lastly, dead nature—a doll, dressed in stuffs of different colours, and always with gold and silver lace. I have obtained all the colours: and, what is still more extraordinary and more curious is, that the gold and the silver are depicted with their metallic lustre, and that rock-crystal, alabaster, and porcelain, are represented with the lustre which is natural to them. In producing the images of precious stones and of glass we observe a curious peculiarity. We have placed before the lens a deep green, which has given a yellow image instead of a green one; whilst a clear green glass placed by the side of the other is perfectly reproduced in colour." The greatest difficulty is that of obtaining many colours at a time; it is, however, possible, and M. Niepce has frequently obtained this result. He has observed, that bright colours are produced much more vividly and much quicker than dark colours: that is to say, that the nearer the colours approach to white the more easily are they produced, and the more closely they approach to black the greater is the difficulty of reproducing them. Of all others, the most difficult to be obtained is the deep green of leaves; the light green leaves are, however, reproduced very easily. After sundry other remarks, of no peculiar moment, M. Niepce de Saint-Victor informs us, that the colours are rendered very much more vivid by the action of ammonia, and at the same time this volatile alkali appears to fix the colours with much permanence. These results bring much more near than hitherto the desideratum of producing photographs in their natural colours. The results are produced upon plates of silver which have been acted upon by chloride of copper, or some other combination of chlorine. The manipulatory details have not been published, but we understand they are very easy.—*Athenæum.*

PREMIUMS offered by the Academy of Belles-Lettres and Inscriptions for 1853, the prize in each case being a gold medal value 2,000 francs. "How and by whom have been executed in France, in the feudal times down to the death of Charles V., great public works, such as roads, bridges, canals, churches, etc." "What new notions have been brought to the history of Greek sculpture from the most ancient times to those of Alexander, by the specimens placed in the museums of Europe since the beginning of the present century?" "To restore the ancient geography of India, from the earliest times to the period of the Mussulman invasion." In addition, the following is the subject proposed for the ordinary prize of 1854:—"To examine the state of accentuation in the Latin inscriptions to the end of the fifth century, and compare it with the rules laid down by Quintillian, Priscian, and other grammarians, and to endeavour to give a complete theory of the employment of the tonic accent amongst the Romans."—*Galignani.*

JUXTAPOSITION OF SCIENTIFIC SOCIETIES.—An opinion has for some years been entertained, by a number of the members of the chief scientific societies of London, that the utility and efficiency of these bodies, which are now scattered in all parts of London, would be greatly increased by their being brought together, and located under one roof. Hitherto no active steps have been taken by any of the societies, though it is nearly half a year since the matter was formally brought forward by the Council of the Royal Society. There can be no doubt that much benefit to science will arise if any arrangement of this sort can be really carried out; at present, however, it appears as if "vested rights" and petty jealousies were almost too powerful to be overcome. It is also to be regretted that an attempt is made to distinguish pure from applied science; it is impossible well to draw a line of distinction between the two, and all that may be said in favour of the juxtaposition of societies for the prosecution of natural knowledge, applies with equal force to the union of the two classes.

SCIENTIFIC BALLOON ASCENTS.—The four ascents which recently took place from Vauxhall at the expense of the Royal Society have been altogether highly satisfactory in their results. The circumstances under which these ascents took place were peculiarly favourable, and the advice and aid rendered to the scientific observers by Mr. Green, no doubt, were of the highest importance. The chief object in view was to obtain a continuous series of observations on the relation of atmospheric pressure, temperature, and the proportion of moisture in the air. The data obtained will prove of great value in meteorological science generally, and will be of especial service in all astronomical calculations in which atmospherical refraction is an element. It is obvious, however, that further observations of the same kind will be desirable in other parts of the globe.

A LESSON FOR MECHANICS' INSTITUTIONS.—Among the cases brought before the Magistrates at Nottingham on Thursday, at the instance of the overseers of St. Mary's parish, there was one of peculiar interest to the people concerned in the management of Mechanics' Institutions. Mr. George Hall, the resident librarian of the Nottingham Mechanics' Institution, was pursued for 8*l.* 8*s.* 9*d.*, poor-rates, chargeable on the Institution, but which he had refused to pay. This is the first time, we believe, in which the overseers of the parish had endeavoured to lay rates upon the Institution in question, and they have been prompted to the step apparently by the character of the exhibitions for which the large hall has from time to time been let to itinerating individuals. Mr. Bowley appeared for the officers; and Mr. Hall, on behalf of the Institution was accompanied by Mr. Enfield, vice-president, and Mr. Renals, honorary secretary. We should state that all literary, scientific, and artistic institutions, like the Mechanics', are especially exempted from paying rates, on account of their purely literary, scientific, or artistic character. But in the present case, the hall has been let for purposes aside from those specified; and Mr. Bowley contended that, as neither an exhibition of monkeys and dogs, nor yet an auction, pertained to literature, so the Institution had exceeded its real purposes, and was no longer to be excepted by the overseers under the provisions of the statute. Mr. Hall, on the part of the Institution, contended that though the entertainments referred to were not of a purely literary kind, still they were not for the purpose of making profit for any individual member of the Institution. On the contrary, whatever was obtained from the parties exhibiting, went to the promotion of the strictly literary and scientific object which the Institution had in view. Mr. Hannay asked if Mr. Dickens and his party went away without having a profit? That was a point to be considered. As no appeal had been lodged, and the time for lodging an appeal in the present charge was now gone by, the magistrates made an order for the amount, with costs.—*Nottingham Journal.*

PATENT LAW AMENDMENT ACT, 1852.

APPLICATIONS AND PROTECTION ALLOWED.

From Gazette, 26th Nov., 1852.

Dated 30th Oct.

571. T. S. Bale and F. G. Sanders—Grinding clays for pottery.
585. J. Whitcomb and R. Smith—Manufacture of carpets.
587. J. Rock—Railway carriages.

Dated 10*th Nov.*

700. W. Johnson—Sewing-machinery.
702. J. T. Powell—Baking and drying biscuits and plastic materials.
704. L. G. Guerin—Improvements in fireplaces.

Dated 11*th Nov.*

705. R. H. Nicholls—Stopping railway carriages.
706. Ernst Luedeke—Motive power.
709. G. Lucas—Composition for filling engraved, cast, or sunk letters or ornaments, &c.
710. J. Noble—Improvements in combing wool, &c.
711. C. Mather and W. W. Platt—Machinery for finishing linen, &c.
712. C. Sharps—Breech-loading firearms.
713. H. Johnson—Machinery for sewing, stitching, &c.
714. H. Huart—Storing and preservation of grain.
715. J. C. Wyper—Ornamenting book-covers, &c.
717. W. Davis—Machinery for file-cutting.

Dated 12*th Nov.*

718. W. S. Middleton—Circular saw bench.
719. Sir C. Fox—Improvements in roads.
720. H. Fletcher—Electro-magnetism to motive power.
721. C. Bloomer—Anchors.
722. G. Kendall—Manufacture of mould candles.
723. D. Henwood—Registering number of persons enterin vehicles or other places.
724. C. Seaton—Metal tubes and apparatus, &c.
725. J. F. Belleville—Generating steam.
726. J. H. Johnson—Reaping-machines.
727. J. H. Johnson—Measuring and registering flow of fluids.
728. G. Stenson—Apparatus for separating gold from earth.
729. T. Day—Landing, screening coals, &c.

Dated 13*th Nov.*

730. G. Philcox—Marine chronometers.
731. E. Davy—Preparation of flax and hemp.
733. J. Caborn—Threshing and dressing-machines.
734. A. Crestadoro—Rapid communications.
735. R. Lucas—Machinery for preparation of cotton, &c., for spinning.
736. S. Dear—Looms for weaving patterns, &c.
737. J. Paterson—Apparatus for shaping collars, &c.
738. R. & C. Coad—Improvements in fireplaces.
739. A. Hawkesworth—Life boats.
740. Earl Dundonald—Laying telegraph wires in earth.
741. S. Sedgwick—Lamps.
742. H. Greaves—Permanent way.
743. P. Forbes—Sowing seeds.

Dated 15*th Nov.*

744. G. D & T. Edmeston—Steam engines and regulating water-wheels, and the like machinery.
745. J. Hogg—Glazed surfaces on paper, &c.
746. J. Cowen & T. Richardson—Sulphuric acid.
747. R. Reyburn—Lozenges, and other confections.
748. C. J. Dumery—Metal pipes or tubes, and apparatus, &c.
749. A. E. L Bellford—Apparatus for inhaling iodine.
750. J. Mirand—Electric telegraphs.
751. P. A. Le Comte de Fontainemoreau—Lamps.
752. G. Berry—Roasting coffee.
753. R. Sandiford—Block printing.
754. W. F. Rae—Gas heating and cooking.
755. J. Robertson—Manufacturer of casks, &c.
756. F. M. Jennings—Preparing flax, hemp, &c.
757. T. Taylor—Measuring fluids and motive power.
758. W. E. Newton—Knitting machinery.
759. A. Rogers—Apparatus for forming sewers, tunnels, &c.
760. J. D. Goodman—Boxes and axles of carriages.
761. S. Holt—Weaving cut-piled fabrics.
762. J. Burley—Apparatus to obtain a cut-pile surface.

Dated 16*th Nov.*

763. J. S. Edwards—Dessicating corn, &c.
764. T. Chrippes—Improvements in tilling land.
765. J. Johnson—Production of ornaments, brooches, boxes, &c., from a certain wood.
766. W. Marsden—Weaving.
768. J. W. Lea and W. Hunt—Utilizing waste heat of coke furnaces.
769. F. Vallée—Spinning and doubling flax, &c.
770. J. O'Keefe—Making watch-cases by machinery.

Dated 17*th Nov.*

771. J. T. Way and J. M. Payne—Burnt and fired ware.
773. H. Russell—Pianofortes.
775. P. A. L. C. Fontainemoreau—Weaving elastic tissues.
777. W. Watt—Weaving.

From Gazette, 30*th Nov.,* 1852.

NO APPLICATIONS.

WEEKLY LIST OF PATENTS SEALED.

A. E. L. Bellford—Improvements in the construction of springs for railway and other carriages. (A communication.) Six months, 25th Nov.

Moses Poole—Improvements in the elastic ribs, sticks, strips, and fillets used in the manufacture of umbrellas, parasols, and various other articles in substitution of whalebone and steel heretofore employed. (A communication.) Six months, 27th Nov.

Lewis Pocock—Improvements in rendering sea and other water pure. (A communication.) Six months, 27th Nov.

P. J. Lemaille—Certain improvements in the preservation of japanned leather. Six months, 1st Dec.

WEEKLY LIST OF DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

Date of Registration.	No. in the Register.	Title.	Proprietor's Name.	Address.
Nov. 26	3393	Improved Winder for Boxes for String, Twine, &c.	Fred. Greer Yates	Winckworth-buildings, East-road, City-road.
,, ,,	3394	A Mode of Connecting Flyers to Spindles	Thomas Fallows	Halshaw Moor, near Manchester.
,, 29	3395	Despatch Boxes	Joseph Toulmin	18, Sise-lane, Queen-street.